

84th Hinode SSC Meeting on 16th January, 2014 at 07:00 JST

Short Summary, Conclusions and Actions

Cirtain announced that given his increasing commitments at NASA HQ and following discussions among the Hinode partners, **Savage** would succeed him as **Chair of the SSC** with effect from this meeting

a. Program Status:

1. Instrument Status Review

SOT not quite nominal (see report of 63rd SSC); blurring and intensity changes now visible for **20% - 25%** of the NFI field of view; NFI observations remain possible but will take a little longer; no change reported from **December** status

XRT is nominal

EIS is nominal

2. Changes to Instrument Telemetry (on-board storage) Allocation

ACTION: Any telemetry allocation change agreements for a HOP should be communicated to Watanabe for inclusion in the Monthly Events listing and ideally in the HOP list; Ongoing

3. HOP Prioritisation

- SSC asked by **SWG** to prioritise HOPs i) with associated ground-based observations that were overlapping in a time zone and ii) in cases that generated mission telemetry use conflicts.

ACTION: Culhane to ensure that such cases were highlighted in SSC meeting notes; Ongoing

b. Previous Action Items

Following the IRIS Team meeting on 12th December, there will be an announcement regarding the mechanisms for community collaboration with IRIS. Ongoing

- other actions have been closed

c. Review/Discussion of Open HOPs and ToOs

- routine **HOPs (81, 130 and 79)** are ongoing

Reeves would like to have **two XRT synoptics** scheduled per day for ongoing measurement of **XRT/AIA** alignment. However the need to restrict the total number of pointings during seven day **Focused Mode** operations was currently making this difficult for the **HOP 79** and **HOP 130** observation days.

ACTION: Reeves and Shine to discuss this issue, including the use of alignment software being developed at Lockheed, and comment at the next **SSC meeting**

d. Review of New Proposals and Scheduling of Observations

Following the discussions at the last SSCMeeting, a total of nine **IRIS/Hinode HOPs (IHOPs)** were submitted to be run in the **February-to-May** interval between the **IRIS** and **Hinode** eclipse seasons.

1. Effects of Quiet Sun Weak Fields on the Chromosphere and Transition Region – Tarbell (tarbell@lmsal.com), Hansteen, Bellot Rubio; HOP 243

- observe Quiet Sun at or close to disc centre; coordinate SAA avoidance for both spacecraft
- minimum observing time: **1 hr**, longer if TLM available; coronal hole and quiet sun examples needed
- **HINODE pointing** (corrected for the usual SOT offset) **should aim 25 arc sec North of the planned IRIS target position**

2. Joint IRIS/Hinode Observations of Post-eruption Supra-arcade Plasma – Reeves (kreeves@cfa.harvard.edu), McKenzie, Doschek, Warren; HOP 244

- characterize plasma motions in post-eruption plasma sheets above flare arcades.
- observe limb AR capable of producing large flares; **flare watch observing time duration**; desirable to continue observations after AR passes W-limb for ≤ 1 day

3. Joint IRIS/Hinode Observations of Small Flares and Micro-flares - Reeves (kreeves@cfa.harvard.edu), Mason, Del Zanna, Dudik, Polito; HOP 245

- obtain plasma diagnostics in microflares and small flares
- observe AR on disk with the possibility of producing small flares; minimum observing time: **6 hr, 12 hr** or more desirable

4. Hot Plasma Properties in Active Regions – Testa (ptesta@cfa.harvard.edu), Mason, Del Zanna; HOP 246

- determine coronal plasma properties at an AR core
- observe AR core possibly with hot loops and at/close to disk center; minimum observing time: **4 hr**, longer if TLM available; prefer SAA avoidance
- if possible repeat the same program on the same AR for a solar rotation, for a few hours every day.

5. Hot Plage/AR Moss - Testa (ptesta@cfa.harvard.edu), De Pontieu, Young; HOP 247

- determine the characteristics of temporal variability in moss emission
- observe moss at footpoints of hot (bright in **AIA 94Å/ XRT**) loops in AR at or close to disk centre; minimum observing time: **1 hr**, longer if TLM available; avoid SAA
- **HINODE pointing** (corrected for the usual SOT offset) **should aim 25 arc sec North of the planned IRIS target position**

6. Coronal Rain Diagnostics: Thermal Evolution, Fine Structure and MHD Seismology – Antolin (patrick.antolin@nao.ac.jp), Katsukawa (yukio.katsukawa@nao.ac.jp), De Pontieu, Okamoto, Kato; HOP 248

- determine evolution and structure of thermal instability in loops and perform MHD seismology with coronal rain
- observe an active region; minimum observing time: **1 hr**, longer if TLM available; avoid SAA;
- **HINODE pointing** (corrected for the usual SOT offset) **should aim 20-25 arc sec inside limb at the planned IRIS target position**

7. Spicule Evolution - De Pontieu (bdp@lmsal.com); HOP 249

- determine the thermal evolution and wave properties in spicules
- observe at the limb in quiet Sun, coronal hole (if available at the limb) and active region; minimum observing time: **1 hr**, longer if TLM available; avoid SAA;

- **Hinode pointing** (corrected for the usual SOT offset) **should aim 20-25 arc sec inside limb at the planned IRIS target position**

8. High Speed Flows Associated with Chromospheric Transients in and around a Sunspot - Katsukawa (yukio.katsukawa@nao.ac.jp), Otsuji, Tarbell; HOP 250

- capture very fast flows associated with chromospheric transients in an AR
- observe a well developed sunspot and its moat region; observing time: **1 hr**, limited by SOT TLM

9. Spectropolarimetry of Flares - Tarbell (tarbell@lmsal.com), Dalda, Kleint, Judge, Reardon; ToO HOP 251

- study behavior of vector magnetic field and possible changes in thermodynamic parameters of flaring active regions; joint with **Dunn Solar Telescope (DST)**
- observe the AR most likely to produce a flare
- **Hinode pointing** (corrected for the usual SOT offset) **should aim 25 arc sec North of the planned IRIS target position**
- **DST observing time interval: March 22 - March 31, 1400 UT to 1800 UT**

The two month interval between **IRIS** and **Hinode** eclipse seasons is a critical period for executing these programmes so during this period, the **IHOPs** will have precedence over normal **Hinode** HOPs other than in exceptional circumstances.

The routine **CORE HOPs (79, 81, 130)** should be scheduled at the ends of continuous tracking periods. It will be necessary to separate the running of **HOP 79** and **HOP 130** given the high number of different pointings associated with these HOPs.

The continuing monthly observations are:

- **Polar Monitoring - Shimojo; CORE HOP 81**
- run on **6th** and **7th February**; fast scan on both poles
- **Multi-temperature Full Disk Slot Scans – Ugarte-Urra, Brooks, Warren; CORE HOP 130**
- run on **18th February**
- **Synoptic SOT Irradiance Scans – Tarbell; CORE HOP 79**
- run on **11th February** (N-S) and **13th February** (E-W); dates flexible

In addition, **HOP 240** is continuing:

- **Temporal Evolution and Magnetic Polarity Reversal of the Sun's Polar Magnetic Patches – Suematsu (suematsu@solar.mtk.nal.ac.jp); HOP 240**
- run on **15th** and **16th February**

e. Date of Next Meeting

- next meeting: **20th February, 2014** at **07:00 JST**; **19th February, 2014** as appropriate in US/Europe

f. AOB

- **Savage** stated that the third monthly report describing coordinated observations by the Hinode instruments will be submitted by **Tarbell/SOT**.

- following discussion, it was agreed that the seven day upload operation mode should be called **Focused Mode**

ACTION: Hinode teams to present summary reports to the the next SSC meeting on progress with Focused Mode testing during the four week test period that will have just been completed

- **Tarbell** stated that **IRIS** would be out of its eclipse season (including atmospheric absorption effects) in the week of **17th February** so **IHOPs** could be scheduled from that date